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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,065	12/04/2001	Yoshiaki Kinoshita	Q67493	9595

7590

06/14/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER,

SAJOUS, WESNER

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,065

Applicant(s)

KINOSHITA, YOSHIAKI

Examiner

Wesner Sajous

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2676

This communication is responsive to the amendment and response dated April 5, 2004.

Claims 1-7 are presented for examination.

Response to Arguments

1. The Applicant, at page section 2 of the response argues that the Dermer reference does not teach the division of an image represented in the form of polygons into a plurality of image areas or creating band-shaped trapping areas extending along the boundary of a pair of image areas.

The Examiner, in response, asserts that although Dermer suggests can be separated into monochromatic images (see col. 1, lines 24-25), Dermer is not specific as to the dividing the image into a plurality of image areas. However, it is noted such deficiency in Dermer is not ground for allowing the present claims. The argued limitation is well known in the art as evidence of Kubo et al. (US 2001/0019340), paragraph 256 and/or Szeliski et al. (US Pat. 5611000), col. 7, lines 17-20. See new ground of rejections below.

Regarding the limitation-- creating band-shaped trapping areas extending along the boundary of a pair of image areas--, the Applicant is directed to figs. 14-15. See also figs. 3{a-b}, and col. 10, lines 6-30, as indicated section 2 of the previous office action.

As per claims 6 and 7, it is noted that because these claims are analogous to claim 1, the discussion set forth above for claim 1 is applied herein for claims 6 and 7.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dermer (US Pat. 5668931) in view of Kubo et al. (US 2001/0019340).

Considering claim 1, Dermer, at fig. 1, discloses a trapping area creating method comprises dividing an image (e.g., separation of color images via step 128 of fig. 1) [represented in form of polygons to which colors are applied into a plurality of image areas] by a straight line passing through vertexes of the polygons (*see figs. 2, 7 and figs 17-20, and col. 4, lines 50-69, cols. 6, lines 32-65, and col. 11, lines 24-67, wherein the gaps in between the lines or regions 1 & 2 represent the plurality of image areas*); determining if a trapping should be applied to each pair of image areas adjacent to one another in at least one direction of two predetermined directions (*e.g., horizontal or vertical directions*), with respect to the plurality of image areas wherein the image is divided (*see col. 8, line 45 to col. 10, line 5, wherein the determining step is as performed by the functions of items 122 and 124/items 450 and 440 of fig. 4*); and creating a ban-shaped trapping area extending along a boundary of two image areas comprising a pair of image areas determined as being suitable for trapping (*as depicted*

Art Unit: 2676

by figs. 14-15. See also figs. 3{a-b}, and col. 10, lines 6-30, wherein the bans-shaped trapping areas creating step correspond to map trapping generator and is characterized by the function of items 430 and 450 of fig. 5).

It is noted that although Dermer suggests can be separated into monochromatic images (see col. 1, lines 24-25), Dermer is not specific as to the dividing the image into a plurality of image areas.

Kubo, in a similar art, teaches dividing the image into a plurality of image areas. See paragraph 255-256 of page 15. Note that the object surface is a 3D model that is made of a plurality of polygons (see section 5 of page 18 of Kubo). See also paragraph 199.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Dermer to include the dividing of image into a plurality of image areas in the same conventional manner as taught by Kubo, in order to improve the precision of a printed object as compared when the whole object surface is considered as a single area. See paragraph 255 of Kubo.

Re claim 2, Dermer, at figs. 2 and 7, discloses dividing the image uses straight lines extending in the same directions as the two predetermined directions passing through the vertexes of the polygon, and sides of the polygon (see *figs. 2, 7 and figs 17-20, wherein the divided image corresponds to separated color images 200, see fig. 2).*

Re claim 3, Dermer discloses the equivalence for the determination uses, as the two predetermined directions, an upper and lower direction and a right and left direction

Art Unit: 2676

of the image (as depicted in figs. 17-20). See col. 12, lines 25-60, and col. 14, line 44 to col. 15, line 67

Re claim 4, Dermer, at figs. 18-19, depicts the equivalence for the determination is based on a difference between colors of two image areas constituting the pair of image areas. See col. 9, lines 45-55.

As per claim 5, Dermer, at fig. 5, depicts the equivalence for performing the creation of the trapping area creates, as the trapping area, an area interposed between a line (as depicted in fig. 12) constituting the boundary and a line obtained when the line (first occurring) is subjected to a parallel translation.

Claim 6 is an apparatus claim reciting the method of claim 1; it is, therefore, rejected under the same rationale as claim 1.

Claim 7 is a computer program performing the method of claim 1; it is, therefore, rejected under the same rationale as claim 1.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Szeliski et al. (US Pat. 5611000) discloses partitioning of an image 101 into a plurality of regions.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2676

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 305-872-9314, (for **Technology Center 2600 only**)

or (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA., Sixth Floor (Receptionist

Commissioner of Patents and Trademarks

Washington, DC 20231

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Wesner Sajous** whose telephone number is **(703) 308-5857**. The examiner can also be reached on Monday through Thursdays and on

Art Unit: 2676

alternate Fridays between 9:00AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Matthew Bella, can be reached at (703) 308-6829. The fax phone number for this group is (703) 308-6606.

WPOB
[Signature]
6/5/2004

Matthew C. Bella

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600